APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,948	03/06/2002	Perry Robinson MacNeille	201-0995 JMS	7599

28395	7590	07/14/2005

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EXAMINER
TRAN, TUAN A

ART UNIT	PAPER NUMBER
2682	

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
	09/683,948	MACNEILLE ET AL.
Office Action Summary	Examiner	Art Unit	
	Tuan A. Tran	2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 February 2005</u>.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over

   Dwyer (5,970,400) in view of Marshall et al. (2002/0094797) and further in view

   of Kuhl (2004/0125821).

   Regarding claims 9-11, Dwyer discloses a plurality of communication system

450, 451 (see fig. 4), each communication system comprising frequency hopping

spread spectrum (FHSS) transceiver 408 receiving a synchronizing pulse per second

(PPS) signal derived from a global positioning system 404, whereby the timing and the

hopping sequence in each of the communication systems 450, 451 are synchronized

based on the PPS signal (See fig. 4 and col. 11 lines 23-60, col. 16 line 55 to col. 17

line 3). However, Dwyer does not mention that: the FHSS transceiver is a Bluetooth

transceiver and a plurality of piconets (scatternet) are formed between the plurality of

communication systems wherein the piconet forming process including: transmitting

inquiry packets from at least one communication system based on the determined

frequency hopping pattern at a plurality of inquiry times, listening for inquiry packets in

at least one of the plurality of communication systems at the plurality of inquiry times,

and establishing a network between the at least of communication system transmitting

inquiry packets and at least one communication system listening for inquiry packets if at

least one communication system listening for inquiry packets receives an inquiry packet

from the at least communication system transmitting inquiry packets, and further each of

the plurality of communication systems is synchronized with every other communication

systems in the scatternet; and the communication system for automotive vehicle.

Marshall teaches a piconet forming process between a plurality of Bluetooth units

utilized FHSS protocol, including: transmitting inquiry packets from at least one

Bluetooth unit based on the determined frequency hopping pattern at a plurality of

inquiry times, listening for inquiry packets in at least one of the plurality of Bluetooth

units at the plurality of inquiry times, and establishing a network between the at least of

Bluetooth unit transmitting inquiry packets and at least one Bluetooth unit listening for

inquiry packets if at least one Bluetooth unit listening for inquiry packets receives an

inquiry packet from the at least Bluetooth unit transmitting inquiry packets (See figs. 4-5,

page 4 [0057] to page 5 [0061]). Kuhl teaches to form a synchronized scatternet

between a plurality of Bluetooth devices wherein each of the Bluetooth devices in the

scatternet is synchronized with every other Bluetooth devices in the scatternet (See figs.

4D, 4E, 5A, 5B and page 3 [0046] to page 4 [0051]). Since it is well known in the art

that number of devices participating in a piconet limits to seven (7) and a device can

participate in different piconets; therefore it would have been obvious to one of ordinary

skill in the art at the time the invention was made to apply the Marshall's teachings in

forming a plurality of piconets (devices belonging to a piconet are inherently

synchronized with each other) between the plurality of communication systems

configured with Bluetooth transceivers (the communication system can participating in

different piconets) and further to apply the Kuhl's teachings in synchronizing the plurality

of piconets (scatternet) for the advantage of sharing information between

communication systems that are within range as well as overcoming a loss of efficiency

upon the creation of the scatternet due to timing differences. Further, it would have

been obvious to one of ordinary skill in the art at the time the invention was made to use

the communication system in automotive vehicle for the advantage of expanding the

application of the system to various types of equipments.

Claims 5-6 and 8 are rejected for the same reasons as set forth in claims 9-11,

as method.

Claims 1-2 and 4 are rejected for the same reasons as set forth in claims 9-11.

Regarding claim 12, Dwyer & Marshall & Kuhl disclose as cited in claim 9. The

communication system, as disclosed by Dwyer & Marshall & Kuhl, inherently

synchronously switching between each piconet since the communication system can

participate & synchronize with others in different piconets.

Claims 3 is rejected for the same reasons as set forth in claim 12.

Claim 7 is rejected for the same reasons as set forth in claim 12, as method.

Regarding claim 13, Dwyer & Marshall & Kuhl disclose as cited in claim 12. The

communication system (the FHSS transceiver), as disclosed by Dwyer & Marshall &

Kuhl, inherently alternates between inquiry periods and periods of communication with

the plurality of piconets.

Response to Arguments

Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

a. The Applicant argued that neither Dwyer nor Marshall teach or suggest a scatternet wherein each FHSS transceiver of the first piconet is synchronized with every other transceiver of a second piconet as claimed in claim 9 (See Remark, page 10 second paragraph). The Examiner respectfully disagrees with the Applicant's arguments because the limitation "each FHSS transceiver of the first piconet is synchronized with every other transceiver of a second piconet" has not been clearly disclosed in claim 9. Claim 9 recites "...whereby each FHSS transceiver in the automotive communication system is synchronized with every other FHSS transceiver in the automotive communication system...", wherein the FHSS transceivers can be in the same piconet of the automotive communication system **or** different piconets of the automotive communication system.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to **Tuan Tran** whose telephone number is **(571) 272-7858**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, **Nick Corsaro**, can be reached at **(571) 272-7876**.

Any response to this action should be mailed to:

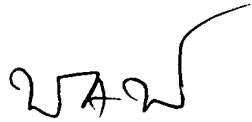Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal

Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Technology Center 2600 Customer Service Office

whose telephone number is (703) 306-0377.

Tuan Tran

AU 2682

NICK CORSARO
PRIMARY EXAMINER